



Wastewater Recycling...
the future is in your hands



What is an Onsite Waste Water System ?

An onsite wastewater system or "septic system" is a method of dealing with household wastewater in areas where public sewers are not available.

The Filtrex systems involve septic tanks (to hold wastewater which starts the process of breaking down the solids and paper which settle in the tank), and a system of pipes that distribute the remaining liquid waste underground over a large area. This can be in the form of the Leach Drains Mk2 or Cell Irrigation Area (Filtrex Alternative Treatment System) where the wastewater "percolates" through the soil, which helps treat the water to a secondary quality.

The purpose is to ensure that this filtration through the soil is sufficient to clean the wastewater before it reaches ground water, catchment areas or water bodies.

What do the Septic Tanks do?

The primary septic tank (or first compartment) of the septic tank receives all the sewage and wastewater from your household use of toilets, kitchen sink, dishwasher, bathtubs, showers, washing machines and other plumbing fixtures. Solids will accumulate in the primary compartment of the primary septic tank. The "sludge" sinks to the bottom and the "scum" floats on the top.

The second septic tank (or compartment) allows for most of the suspended solids to settle out, providing a clearer effluent to the disposal field or cell irrigation area.

Can I build over the Septic Tanks?

NO. Septic tanks are required to be inspected and must remain accessible. No structures or driveways should be built within 1.2m of the septic tank, and no traffic should be allowed over the tank.

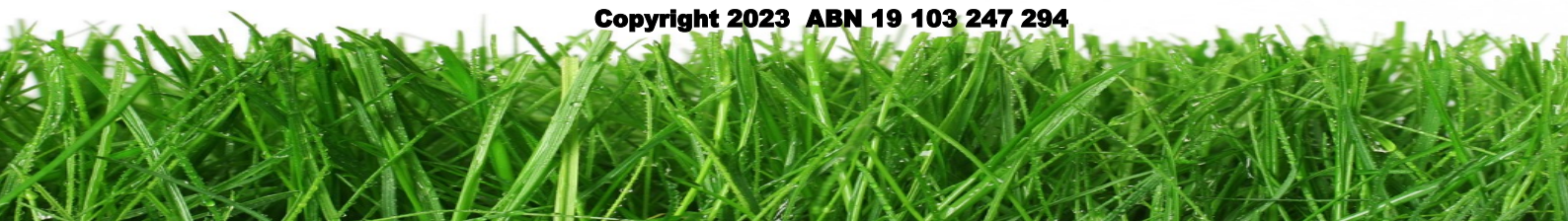
Do the Septic Tanks need pumping out?

Guidelines suggest that the Primary Tank be pumped between 4 and 8 years by a licensed wastewater removalist pumping service. A guide is :

- 1-2 persons—8 years
- 2-4 persons—5-6 years
- 5 or more persons—4 years

When a large amount of sludge accumulates, over time it must be pumped out before any solids are introduced into the drains or cell irrigation area. Solids in the drains or irrigation area can clog the system and reduce the efficient distribution of effluent and may cause effluent overflow. Such conditions are a potential health hazard, therefore the maintenance of the septic tank is very important.

The owner should strictly limit the amount of non-digestible and hard to digest wastes introduced into the septic tank including but not limited to grease, coloured toilet paper, sanitary napkins, tampons, coffee grounds, disposable nappies, paper towels, cigarette butts, photographic wastes, plastics, paints, varnishes, solvents, oils, pesticides, or medical wastes. Normal household use of soaps, detergents, bleach and other cleaning agents will not impair the functioning of the septic tank. Yeast or commercially available microbial preparations, while not harmful to the tank, will not enhance its functioning and are a waste of money.





Why is it necessary to have my septic tank pumped?

The cost of a septic system is a major investment. To protect that investment and prolong the life of your system, it is necessary to have the septic tank pumped out on a regular basis. Failure to routinely pump the septic tank may result in the failure and premature malfunction of the system.

Is there any maintenance required ?

The leach drains or cell irrigation area dispose of effluent by either gravity or pumped. Most systems have two drains (or in the case of the Alternative Treatment System (ATS) they are called cells) however dependent upon design, you may have more. These drains or cells must be manually switched by means of a diverter valve. Simply switch the handle of the valve from one field to the other every three months. Also your individual experience can dictate how often the fields should actually be switched, but four to six times per year is suggested for most households. The leach drain or cell irrigation area must be kept vegetated with lawn and regularly mowed. This maintenance of lawn will promote good transpiration (loss of water through plant respiration). No structures, sidewalks, patios, decks or driveways should be built over this area and no traffic should be allowed as structures are considered “non trafficable”.

Can I install my own system?

YES. In the case of the standard Leach Drain MK2 system, however the Alternative Treatment System must be installed by Filtrex accredited installers to meet the strict criteria for which it is approved.

Can I choose the type of Septic System that I want?

Yes, there are usually alternatives to choose from. If your local government authority determines that you have suitable soils and environment for Standard Septic Systems however in certain circumstances you may be required to have a more specialised system such as an Secondary Treatment System(STS) if perhaps there are environmental factors or other restrictive site features, then your choice of wastewater system may require a higher developed wastewater treatment form such as the Filtrex Alternative Treatment System (which provides Nutrient Phosphate Retention and produces secondary quality effluent).

Why would a non-standard septic system be required (ie. Secondary Treatment System)?

- ◆ When unsuitable soil is encountered such as soils largely comprised of clay/gravel or fractured rock.
- ◆ When shallow groundwater is encountered (or pooled or perched water during winter months).
- ◆ Sewage sensitive areas located around water bodies, catchment areas, public drinking source areas or wetlands.

How long do Septic Approvals last for?

Septic approvals are generally valid for two years. Be sure to call your local Health Department of your local regulating authority if you think your construction will go beyond the expiration date, so a reasonable extension can be worked out.

Do I need to watch the amount of wastewater we produce?

Be mindful to not “overload” the system and produce more wastewater than your system has been designed for. Your system has been designed based on guidelines produced by the Health Department of Western Australia to take a particular hydraulic load and overuse may cause malfunction of the system.





Where is my Septic Tank located ?

The septic tank is usually buried near your house and connected by a sewer pipe to your indoor plumbing. When your system is installed an “As Constructed Plan” is provided to your Local Government Authority as well as to you the “Householder”. This plan will indicate where the tanks and drain or cell irrigation areas are. It should be kept in a convenient place for yourself for future reference, or should you sell the property the new owner.

What should and should not go into my Septic Tank ?

The best situation for a long septic tank life would be that only human wastewater enters the tank. This includes wastewater from your bathroom, laundry, kitchen and toilets. In moderation, a properly working septic tank will handle biodegradable detergents, laundry soaps, kitchen wastes, and biodegradable household chemicals. However in large amounts, any and all of these things can limit the digestive properties of your septic tank.

Things like cigarette butts, disposable baby wipes, sanitary products, plastics, any other rubbish or high levels of cleaning agents or chemicals (such as bleach or medicines) create problems for your septic tank. They have the potential when used in large quantities to kill the good bacteria the septic tank needs to breakdown human waste. Other items do not readily decompose and, more importantly, may clog the baffles and prevent proper flow through the septic tank.

How can I tell if my Septic Tank is working properly?

There should be no odour and wastewater should flow freely from fixtures (sinks, showers etc.). There should be no unusual sounds when wastewater is draining away from fixtures (ie. Gurgling, bubbling).

What should I do if my Audio Visual Alarm is Sounding ?

If you have a “pump fed” system as opposed to a “gravity fed” system, the alarm is designed to alert you to a potential problem. This is done by a flashing light and sound to advise you that your pump could have a problem.

- ✓ Check power has not recently been turned off and when turned back on causing a “false” alarm until the backlog of water has been pumped out to either the leach drains (standard septics) or cell irrigation area (Secondary Treatment System).
- ✓ Take off the pump pit lid and check the water level in the pump pit. If the water level is high the pump may have failed.
- ✓ Contact Filtrex or your local plumber for advice.
- ✓ Should the pump require replacement, you need to attend to immediately and reduce your wastewater production to prevent overloading.

Can I plant anything over my leach drains or cell irrigation area ?

Filtrex recommend lawn/grass to be planted as this has a non vigorous rooting system (some ground covers may be suitable however check with your local nursery to ensure roots will not impact upon your system). You need to be careful what you choose to plant. Woody plantings like trees or shrubs can damage the underground cages of the system and associated pipework and potentially clog with root systems which are invasive. Vegetable or fruit gardens could be contaminated if placed too close. For these reasons, landscaping the area with lawn is recommended by Filtrex as it will produce the most efficient method of evapotranspiration of the wastewater for which these areas have been designed for.





Can I cut my grass with a ride on lawn mower?

Yes, your lawn can be maintained with a ride on lawnmower of up to 300kg once lawn has been established.

Why do I have to have a mound in my yard (system inverted)?

When the local government authority carries out a site assessment for your approval they will impose certain installation conditions. This may require the leach drains or cell irrigation area to be either semi or fully inverted (above ground).

In some areas the water table is too high for a conventional gravity system, so leach drains or cells are inverted forming a mound as it is required to ensure the separation of the base of either the leach drains or membrane of the cell irrigation area can meet the statutory requirement.

This will ensure the effluent has sufficient clearance to water table or pooled or perched water during winter months to prevent waterlogging and ensures the system can provide the best conditions for the processing of the effluent.

What is a “Riser”?

A riser is an extension that would bring the access points of the tank lids up to/or above ground level for easier access in the future and to meet the local government installation conditions.

How can I locate the Septic Tank Lid?

When your system was installed an “As Constructed Plan” would have been completed and sent to the homeowner and local government authority whom approved the installation.

It is important to keep any “As Constructed Plans” issued for future reference.

The “As Constructed Plan” will provide measurements from points on the home to assist with the location of the septic tanks and lids.

What does the diverter handle do and where can I find it?

The diverter is housed within the diverter valve box. (Green rectangular lid).

It is important to change the direction of the diverter handle every 3 or 4 months as its job is to change the flow of wastewater to make the drains or cell irrigation areas “alternating” allowing one side to rest whilst using the other side.

The diverter should remain accessible and free of vegetation so that it is visible at all times.

